

What is claimed is:

SUB A17

1. A method of configuring a directory server comprising a plurality of entries, the method comprising the steps of:
 - 5 creating a CoS scheme, wherein the CoS scheme comprises
a CoS Definition entry, which includes a CoS specifier and a list of
attributes, whereby a first target entry within scope of the CoS scheme obtains values for
attributes provided in the CoS Definition entry by using an attribute with a distinguishing
name (DN) value contained within the first target entry.
 - 10 2. The method of claim 1, wherein the DN points to a second target entry which is a
valid entry.
 3. The method of claim 1, wherein the DN points to a second target entry which is a
15 valid entry and the first target entry uses the second target entry as a template.
 4. The method of claim 1, wherein the value of the CoS specifier in the CoS
Definition entry appears in a target entry as a first attribute type.
 - 20 5. A method of providing an attribute-value pair stored in a directory system and
shared by a plurality of target entries in the directory system, the method comprising the
steps of:
 - creating an indirect CoS scheme;
 - receiving a request for an attribute-value pair associated with a first target entry;
 - 25 searching in a list of attribute-value pairs which are associated with template
entries that are in turn associated with CoS Definition entries for instances of attribute-
value pairs that match the requested attribute type, said searching step resulting in a
matched list of attribute-value pairs;

applying at least one of a set of constraints to the matched list of attribute-value pairs; and

returning the attribute-value pair that satisfied the applied constraint(s).

5 6. The method as in claim 5, wherein the set of constraints includes CoS scope.

7. The method as in claim 5, wherein the set of constraints includes determining if a CoS specifier associated with the matched attribute-value pair matches a valid second target entry.

10

8. The method as in claim 7, wherein the matched second target entry contains an attribute provided by the indirect CoS scheme.

9. An apparatus comprising:

15

a directory server comprising:

a component to configure and store a plurality of target entries; and

a component to create a CoS scheme, wherein the CoS scheme comprises

a CoS Definition entry, which includes a CoS specifier and a list of

attributes, whereby a first target entry within scope of the CoS scheme obtains values for

20

attributes provided in the CoS Definition entry by using an attribute with a distinguishing name (DN) value contained within the first target entry.

10. The apparatus of claim 9, wherein the DN points to a second target entry which is a valid entry.

25

11. The apparatus of claim 9, wherein the DN points to a second target entry which is a valid entry and the first target entry uses the second target entry as a template.

12. The method of claim 9, wherein the value of the CoS specifier in the CoS Definition entry appears in a target entry as a first attribute type.

13. An apparatus comprising:

5 a directory server comprising:

a component configured to store a plurality of target entries;

a component adapted to configure an attribute-value pair that could be shared by at least a subset of the plurality of target entries using an indirect CoS scheme;

10 a component configured to receive a request for an attribute-value pair associated with a first target entry;

a component configured to search in a list of attribute-value pairs which are associated with template entries that are in turn associated with CoS Definition entries for instances of attribute-value pairs that match the requested attribute type, said searching step resulting in a matched list of attribute-value pairs;

15 a component configured to apply at least one of a set of constraints to the matched list of attribute-value pairs to result in a selected attribute-value pair; and

a component configured to return the selected attribute-value pair.

14. The method as in claim 13, wherein the set of constraints includes determining if
20 a CoS specifier associated with the matched attribute-value pair matches a valid second target entry.

15. The method as in claim 13, wherein the matched second target entry contains an attribute provided by the indirect CoS scheme.

25

16. The method as in claim 13, wherein the matched second target entry contains an attribute provided by the indirect CoS scheme.